

## **REMARKS/ARGUMENTS**

The Applicant thanks the Examiner for the Office Action dated September 4, 2007.

### **Claim Amendments**

Claim 1 has been amended by way of introducing the following limitations:

“coded data printed as a collection of tags” – basis can be found at page 13, lines 7-8.

“each tag being indicative ... a location of the tag” – basis can be found at page 16, lines 21-24.

“wherein the position of the nib is computed using an observed perspective distortion on an imaged tag and a known geometry of pen optics” – basis can be found at page 30, lines 26-30.

Corresponding amendments have been made to independent claim 29.

### **Claim Rejections - 35 USC § 103**

The Applicant denies that newly cited Djuknic teaches or suggests the previously-specified claim features of:

- coded data indicative of a plurality of locations on the form; and
- indicating data indicative of a position of a nib of the pen relative to the form.

Instead, Djuknic relies on, for example, barcodes which directly encode Internet addresses. Upon reading a barcode, Djuknic’s sensing device accesses a webpage encoded by the barcode (see column 7, line 58 *et seq*). Djuknic’s sensing device never sends “indicating data indicative of a position of a nib of the pen relative to the form”. Hence, the Applicant contests the Examiner’s assertions regarding the teaching of Djuknic.

Nevertheless, in deference to the Examiner’s rejection and in order to expedite examination of this application, claim 1 has been amended to further specify that the position of the nib is computed using an observed perspective distortion on an imaged tag and a known geometry of pen optics.

In the Applicant's submission, Djuknic plainly fails to teach that the position of the nib is computed using a perspective distortion observed on an imaged tag and a known geometry of pen optics.

As explained on page 30, line 26 *et seq* of the present description, the use of perspective distortion on an imaged tag enables an accurate determination of nib position. In tracking pen clicks, or movement of a pen on a page, it is important for the system to know precisely *where* the nib is positioned. Any approximations would lead to inherent inaccuracies in the system, which are highly undesirable.

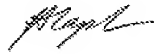
Since it is generally not possible to place the nib in the field of view of an image sensor (due to interference in the optical system of the pen), there is a problem of how to determine nib position with high accuracy. Prior art optical positioning systems typically make an approximation by assuming that an imaged portion of the page corresponds with the actual nib position, and constraining the pen design so that the nib is placed as near as possible to the field of view of the image sensor. However, there will always be inherent inaccuracies in such systems.

None of the available prior art provides any teaching as to how nib positions on a page may be determined with high accuracy. Both Djuknic and Powar lack any teaching of the claim features now specified in claim 1. Accordingly, it is submitted that the present invention is not obvious in view of any of the cited prior art.

It is respectfully submitted that all of the Examiner's objections have been successfully traversed. Accordingly, it is submitted that the application is now in condition for allowance. Reconsideration and allowance of the application is courteously solicited.

Very respectfully,

Applicant/s:




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